

Title (en)  
LAMINATED FILM

Title (de)  
VERBUNDFOLIE

Title (fr)  
FILM STRATIFIÉ

Publication  
**EP 3263336 A1 20180103 (EN)**

Application  
**EP 16755512 A 20160224**

Priority  
• JP 2015033746 A 20150224  
• JP 2016055324 W 20160224

Abstract (en)  
A laminate film which exhibits excellent gas barrier properties and lamination strength even after a severe retort treatment or which is small deterioration of gas barrier properties and hardly cause interlayer peeling can be provided. The laminate film comprises a coating layer, a metal oxide layer and a protective layer, with another intervening layer or without any intervening layer, laminated in this order on at least one surface of a polyester substrate film, wherein the coating layer comprises an oxazoline group-containing resin (A) and a polyurethane resin (B), wherein the metal oxide layer comprises a composite oxide composed of silicon oxide and aluminum oxide, and wherein the protective layer comprises a polyurethane resin (D), the polyurethane resin (D) contains a metaxylylene group in an amount of 20 to 33% by mass and a silanol group in an amount of 700 to 1700 mg per kg of a resin constituting the polyurethane resin (D), as a Si element amount contained in the silanol group.

IPC 8 full level  
**B32B 9/00** (2006.01); **B32B 27/36** (2006.01); **B32B 27/40** (2006.01); **C08J 7/043** (2020.01); **C08J 7/048** (2020.01); **C08J 7/052** (2020.01)

CPC (source: EP KR US)  
**B32B 9/00** (2013.01 - EP US); **B32B 9/045** (2013.01 - KR); **B32B 11/046** (2013.01 - US); **B32B 11/08** (2013.01 - US);  
**B32B 27/36** (2013.01 - EP KR US); **B32B 27/40** (2013.01 - EP KR US); **C08G 18/0823** (2013.01 - EP US); **C08G 18/3206** (2013.01 - EP US);  
**C08G 18/348** (2013.01 - EP US); **C08G 18/4825** (2013.01 - EP US); **C08G 18/6692** (2013.01 - EP US); **C08G 18/724** (2013.01 - EP US);  
**C08G 18/758** (2013.01 - EP US); **C08G 18/7642** (2013.01 - EP US); **C08G 18/8048** (2013.01 - EP US); **C08J 7/0423** (2020.01 - EP US);  
**C08J 7/043** (2020.01 - EP US); **C08J 7/048** (2020.01 - EP US); **C08J 7/052** (2020.01 - EP US); **C09D 175/04** (2013.01 - KR US);  
**C08J 2367/02** (2013.01 - EP US); **C08J 2475/04** (2013.01 - EP US); **C08J 2475/12** (2013.01 - EP US)

Cited by  
EP4053196A4; EP3421231A4; US11261307B2; US11932742B2

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Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3263336 A1 20180103**; **EP 3263336 A4 20180905**; **EP 3263336 B1 20220216**; CN 107249887 A 20171013; JP 6606165 B2 20191113;  
JP WO2016136768 A1 20171130; KR 102488263 B1 20230116; KR 20170121175 A 20171101; TW 201636215 A 20161016;  
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KR 20177022877 A 20160224; TW 105105432 A 20160224; US 201615551452 A 20160224